

What is claimed is;

- 1        1. A solution preparing apparatus comprising:
  - 2            a chamber, an inside of which is divided into a first compartment
  - 3            and a second compartment by a movable partition;
  - 4            a dissolving solution supply line for supplying a dissolving
  - 5            solution to the first compartment of the chamber;
  - 6            a solution tank connected with the first compartment through
  - 7            a first solution preparing line and connected with the second
  - 8            compartment through a second solution preparing line;
  - 9            a transporting pump provided in the second solution preparing
  - 10          line
  - 11          a concentration meter;
  - 12          a solution transporting line for transporting solution filled
  - 13          in the second compartment to the point of use; and
  - 14          a circulating line connecting the first solution preparing
  - 15          line between the first compartment and the solution tank to the second
  - 16          solution preparing line between the transporting pump and the second
  - 17          compartment;
  - 18          said solution tank being provided with an upstream tank portion
  - 19          and a downstream tank portion in liquid communication at bottoms
  - 20          thereof, and at least one filter provided in a downstream portion

21 of the downstream tank portion.

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1 2. The solution preparing apparatus claimed in claim 1,  
2 wherein the solution tank is a U-shaped tank constructed of a  
3 relatively small-diameter upstream tank portion and a relatively  
4 large-diameter downstream tank portion connected at bottoms thereof  
5 by a bottom portion of the U-shaped tank having small-diameter so

6 as to communicate with each other.

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1 3. The solution preparing apparatus claimed in claim 1,  
2 wherein the solution tank is a tubular tank divided into an upstream  
3 tank portion and a downstream tank portion by a vertically arranged  
4 diaphragm.

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1 4. The solution preparing apparatus claimed in claim 1, wherein  
2 a powder supply means is provided above the upstream tank portion  
3 of the solution tank.

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1 5. The solution preparing apparatus claimed in claim 1, wherein  
2 a level detecting sensor is provided in the upstream tank portion  
3 of the solution tank.

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1           6. The solution preparing apparatus claimed in claim 1, wherein  
2    a powder level sensor is provided in the downstream tank portion  
3    of the solution tank.

1           7. The solution preparing apparatus claimed in claim 1, wherein  
2    a heater is provided in the second solution preparing line downstream  
3    of the solution tank.